

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/776,172A

Source: FW/b

Date Processed by STIC: 6/24/05

# ***ENTERED***



IFW16

## RAW SEQUENCE LISTING

DATE: 06/24/2005

PATENT APPLICATION: US/10/776,172A

TIME: 13:59:45

Input Set : A:\10776172.txt

Output Set: N:\CRF4\06242005\J776172A.raw

## SEQUENCE LISTING

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5 (1) GENERAL INFORMATION:
7   (i) APPLICANT: WOLPE, STEPHEN D.
8           TSYRLOVA, IRENA
10  (ii) TITLE OF INVENTION: INHIBITOR AND STIMULATOR OF STEM CELL PROLIFERATION
11                        AND USES THEREOF
13  (iii) NUMBER OF SEQUENCES: 39
15  (iv) CORRESPONDENCE ADDRESS:
16      (A) ADDRESSEE: NIXON & VANDERHYE P.C.
17      (B) STREET: 901 NORTH GLEBE ROAD
18      (C) CITY: ARLINGTON
19      (D) STATE: VIRGINIA
20      (E) COUNTRY: U.S.A.
21      (F) ZIP: 22203-1808
23  (v) COMPUTER READABLE FORM:
24      (A) MEDIUM TYPE: 1.44 Mb disk
25      (B) COMPUTER: IBM PC compatible
26      (C) OPERATING SYSTEM: PC-DOS/MS-DOS
27      (D) SOFTWARE: MS Word
29  (vi) CURRENT APPLICATION DATA:
C--> 30      (A) APPLICATION NUMBER: US/10/776,172A
C--> 31      (B) FILING DATE: 12-Feb-2004
32      (C) CLASSIFICATION:
38  (vii) PRIOR APPLICATION DATA:
35      (A) APPLICATION NUMBER: US 08/832,443
36      (B) FILING DATE: 03-APR-1997
39      (A) APPLICATION NUMBER: US 08/627,173
40      (B) FILING DATE: 03-APR-1996
43 (2) INFORMATION FOR SEQ ID NO: 1:
45   (i) SEQUENCE CHARACTERISTICS:
46       (A) LENGTH: 13 amino acids
47       (B) TYPE: amino acid
48       (C) STRANDEDNESS:
49       (D) TOPOLOGY: linear
51   (ii) MOLECULE TYPE: peptide
53   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
55   Phe Pro His Phe Asp Leu Ser His Gly Ser Ala Gln Val
56   1             5             10
59 (2) INFORMATION FOR SEQ ID NO: 2:
61   (i) SEQUENCE CHARACTERISTICS:
62       (A) LENGTH: 15 amino acids
63       (B) TYPE: amino acid
64       (C) STRANDEDNESS:

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65          (D) TOPOLOGY: linear
67      (ii) MOLECULE TYPE: peptide
69      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
71      Cys Phe Pro His Phe Asp Leu Ser His Gly Ser Ala Gln Val Cys
72      1          5          10          15
75 (2) INFORMATION FOR SEQ ID NO: 3:
77      (i) SEQUENCE CHARACTERISTICS:
78          (A) LENGTH: 19 amino acids
79          (B) TYPE: amino acid
80          (C) STRANDEDNESS:
81          (D) TOPOLOGY: linear
83      (ii) MOLECULE TYPE: peptide
85      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
87      Asp Ala Leu Thr Asn Ala Val Ala His Val Asp Asp Met Pro Asn Ala
88      1          5          10          15
90      Leu Ser Ala
94 (2) INFORMATION FOR SEQ ID NO: 4:
96      (i) SEQUENCE CHARACTERISTICS:
97          (A) LENGTH: 10 amino acids
98          (B) TYPE: amino acid
99          (C) STRANDEDNESS:
100         (D) TOPOLOGY: linear
102      (ii) MOLECULE TYPE: peptide
104      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
106      Leu Val Val Tyr Pro Trp Thr Gln Arg Phe
107      1          5          10
110 (2) INFORMATION FOR SEQ ID NO: 5:
112      (i) SEQUENCE CHARACTERISTICS:
113          (A) LENGTH: 9 amino acids
114          (B) TYPE: amino acid
115          (C) STRANDEDNESS:
116          (D) TOPOLOGY: linear
118      (ii) MOLECULE TYPE: peptide
120      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
122      Leu Val Val Tyr Pro Trp Thr Gln Arg
123      1          5
126 (2) INFORMATION FOR SEQ ID NO: 6:
128      (i) SEQUENCE CHARACTERISTICS:
129          (A) LENGTH: 8 amino acids
130          (B) TYPE: amino acid
131          (C) STRANDEDNESS:
132          (D) TOPOLOGY: linear
134      (ii) MOLECULE TYPE: peptide
136      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
138      Leu Val Val Tyr Pro Trp Thr Gln
139      1          5
142 (2) INFORMATION FOR SEQ ID NO: 7:
144      (i) SEQUENCE CHARACTERISTICS:
145          (A) LENGTH: 7 amino acids

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146 (B) TYPE: amino acid  
147 (C) STRANDEDNESS:  
148 (D) TOPOLOGY: linear  
150 (ii) MOLECULE TYPE: peptide  
152 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:  
154 Leu Val Val Tyr Pro Trp Thr  
155 1 5  
158 (2) INFORMATION FOR SEQ ID NO: 8:  
160 (i) SEQUENCE CHARACTERISTICS:  
161 (A) LENGTH: 6 amino acids  
162 (B) TYPE: amino acid  
163 (C) STRANDEDNESS:  
164 (D) TOPOLOGY: linear  
166 (ii) MOLECULE TYPE: peptide  
168 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:  
170 Leu Val Val Tyr Pro Trp  
171 1 5  
174 (2) INFORMATION FOR SEQ ID NO: 9:  
176 (i) SEQUENCE CHARACTERISTICS:  
177 (A) LENGTH: 5 amino acids  
178 (B) TYPE: amino acid  
179 (C) STRANDEDNESS:  
180 (D) TOPOLOGY: linear  
182 (ii) MOLECULE TYPE: peptide  
184 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:  
186 Leu Val Val Tyr Pro  
187 1 5  
190 (2) INFORMATION FOR SEQ ID NO: 10:  
192 (i) SEQUENCE CHARACTERISTICS:  
193 (A) LENGTH: 7 amino acids  
194 (B) TYPE: amino acid  
195 (C) STRANDEDNESS:  
196 (D) TOPOLOGY: linear  
198 (ii) MOLECULE TYPE: peptide  
200 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:  
202 Val Val Tyr Pro Trp Thr Gln  
203 1 5  
206 (2) INFORMATION FOR SEQ ID NO: 11:  
208 (i) SEQUENCE CHARACTERISTICS:  
209 (A) LENGTH: 7 amino acids  
210 (B) TYPE: amino acid  
211 (C) STRANDEDNESS:  
212 (D) TOPOLOGY: linear  
214 (ii) MOLECULE TYPE: peptide  
216 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:  
218 Tyr Pro Trp Thr Gln Arg Phe  
219 1 5  
222 (2) INFORMATION FOR SEQ ID NO: 12:  
224 (i) SEQUENCE CHARACTERISTICS:

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225      (A) LENGTH: 6 amino acids
226      (B) TYPE: amino acid
227      (C) STRANDEDNESS:
228      (D) TOPOLOGY: linear
230      (ii) MOLECULE TYPE: peptide
232      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
234      Tyr Pro Trp Thr Gln Arg
235      1      5
238 (2) INFORMATION FOR SEQ ID NO: 13:
240      (i) SEQUENCE CHARACTERISTICS:
241          (A) LENGTH: 5 amino acids
242          (B) TYPE: amino acid
243          (C) STRANDEDNESS:
244          (D) TOPOLOGY: linear
246      (ii) MOLECULE TYPE: peptide
248      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
250      Tyr Pro Trp Thr Gln
251      1      5
254 (2) INFORMATION FOR SEQ ID NO: 14:
256      (i) SEQUENCE CHARACTERISTICS:
257          (A) LENGTH: 6 amino acids
258          (B) TYPE: amino acid
259          (C) STRANDEDNESS:
260          (D) TOPOLOGY: linear
262      (ii) MOLECULE TYPE: peptide
264      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
266      Arg Met Trp Met Phe Arg
267      1      5
270 (2) INFORMATION FOR SEQ ID NO: 15:
272      (i) SEQUENCE CHARACTERISTICS:
273          (A) LENGTH: 423 base pairs
274          (B) TYPE: nucleic acid
275          (C) STRANDEDNESS: single
276          (D) TOPOLOGY: linear
278      (ii) MOLECULE TYPE: DNA (genomic)
280      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
282 GTGCTGTCTC CTGCCGACAA GACCAACGTC AAGGCCGCCT GGGGTAAGGT CGGCGCGCAC      60
284 GCTGGCGAGT ATGGTGCGGA GGCCCTGGAG AGGATGTTCC TGTCCTTCCC CACCACCAAG      120
286 ACCTACTTCC CGCACTTCGA CCTGAGCCAC GGCTCTGCCC AGGTTAAGGG CCACGGCAAG      180
288 AAGGTGGCCG ACGCGCTGAC CAACGCCGTG GCGCACGTGG ACGACATGCC CAACGCGCTG      240
290 TCCGCCCTGA GCGACCTGCA CGCGCACAAG CTTTCGGGTGG ACCCGGTCAA CTTCAAGCTC      300
292 CTAAGCCACT GCCTGCTGGT GACCCTGGCC GCCCACCTCC CCGCCGAGTT CACCCCTGCG      360
294 GTGCACGCCT CCCTGGACAA GTTCCTGGCT TCTGTGAGCA CCGTGCTGAC CTCCAAATAC      420
296 CGT      423
299 (2) INFORMATION FOR SEQ ID NO: 16:
301      (i) SEQUENCE CHARACTERISTICS:
302          (A) LENGTH: 141 amino acids
303          (B) TYPE: amino acid
304          (C) STRANDEDNESS:

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305         (D) TOPOLOGY: linear
307     (ii) MOLECULE TYPE: peptide
309     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:
311     Val Leu Ser Pro Ala Asp Lys Thr Asn Val Lys Ala Ala Trp Gly Lys
312     1         5         10         15
314     Val Gly Ala His Ala Gly Glu Tyr Gly Ala Glu Ala Leu Glu Arg Met
315     20         25         30
317     Phe Leu Ser Phe Pro Thr Thr Lys Thr Tyr Phe Pro His Phe Asp Leu
318     35         40         45
320     Ser His Gly Ser Ala Gln Val Lys Gly His Gly Lys Lys Val Ala Asp
321     50         55         60
323     Ala Leu Thr Asn Ala Val Ala His Val Asp Asp Met Pro Asn Ala Leu
324     65         70         75         80
326     Ser Ala Leu Ser Asp Leu His Ala His Lys Leu Arg Val Asp Pro Val
327     85         90         95
329     Asn Phe Lys Leu Leu Ser His Cys Leu Leu Val Thr Leu Ala Ala His
330     100        105        110
332     Leu Pro Ala Glu Phe Thr Pro Ala Val His Ala Ser Leu Asp Lys Phe
333     115        120        125
335     Leu Ala Ser Val Ser Thr Val Leu Thr Ser Lys Tyr Arg
336     130        135        140
339 (2) INFORMATION FOR SEQ ID NO: 17:
341     (i) SEQUENCE CHARACTERISTICS:
342         (A) LENGTH: 438 base pairs
343         (B) TYPE: nucleic acid
344         (C) STRANDEDNESS: single
345         (D) TOPOLOGY: linear
347     (ii) MOLECULE TYPE: DNA (genomic)
349     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:
351     GTGCACCTGA CTCCTGAGGA GAAGTCTGCC GTTACTGCC TGTGGGGCAA GGTGAACGTG      60
353     GATGAAGTTG GTGGTGAGGC CCTGGGCAGG CTGCTGGTGG TCTACCTTTG GACCCAGAGG      120
355     TTCTTTGAGT CCTTTGGGGA TCTGTCCACT CCTGATGCTG TTATGGGCAA CCCTAAGGTG      180
357     AAGGCTCATG GCAAGAAAGT GCTCGGTGCC TTTAGTGATG GCCTGGCTCA CCTGGACAAC      240
359     CTCAAGGGCA CCTTTGCCAC ACTGAGTGAG CTGCACTGTG ACAAGCTGCA CGTGGATCCT      300
361     GAGAACTTCA GGCTGCTGGG CAACGTGCTG GTCTGTGTGC TGGCCCATCA CTTTGGCAAA      360
363     GAATTCACCC CACCAAGTGA GGCTGCCTAT CAGAAAGTGG TGGCTGGTGT GGCTAATGCC      420
365     CTGGCCCA CAAGTATCAC                                     438
368 (2) INFORMATION FOR SEQ ID NO: 18:
370     (i) SEQUENCE CHARACTERISTICS:
371         (A) LENGTH: 146 amino acids
372         (B) TYPE: amino acid
373         (C) STRANDEDNESS:
374         (D) TOPOLOGY: linear
376     (ii) MOLECULE TYPE: peptide
378     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:
380     Val His Leu Thr Pro Glu Glu Lys Ser Ala Val Thr Ala Leu Trp Gly
381     1         5         10         15
383     Lys Val Asn Val Asp Glu Val Gly Gly Glu Ala Leu Gly Arg Leu Leu
384     20         25         30

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